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THE JOHNS HOPKINS HOSPITAL
BALTIMORE, MARYLAND 21205
Department of Pediatrics

August 11, 1986

Dr. Joshua Lederberg
President
The Rockefeller University
1230 York Avenue
New York, NY 10021

Dear Josh:

Thanks for yours of 29 July and for its enclosures and references. Barber's paper I have, but Cohen's book I haven't read, but will.

Did I misrepresent the medical students? I suggest that they could have a theory of human nature but don't because in medicine we don't think in those terms. I don't know the reasons for this lack but among them must be the aims of both the preclinical teachers and of the students themselves. The former are interested in structure and mechanisms and to them variation is a nuisance, and as for the students, it is for the exigent aspects of medicine that they thirst; why a person has a heart attack is of little interest in a coronary care unit. In my experience high school students and their teachers take in the "balanced genetic-environmental determinism" whenever it's presented to them, so if medical students don't, it is that we don't offer it. Actually, I think the issue will be resolved by the sheer weight of information following from the discoveries of the human genome and of so many disease-related genes. That is, genetic variation is likely to become the centerpiece of a sort of theory of disease based on the perspectives of human biology you mention in your article "The genetics of human nature"; the evolutionary, the developmental and the ecological. By "theory" I guess I mean that looking at disease in an evolutionary and developmental and ecological context explains some aspects and predicts others. the enclosed represents a start on this construction.

I'd be very much interested in Robert Merton's views on medical education. I've been rereading some of his papers thinking they might help in understanding why Garrod's ideas were multiply discovered.

Roger Williams was one who came independently to similar conclusions. You've mentioned him before, and I can't say why I didn't pay him more attention. Possibly it's because his book (1956) appeared at a time when others (Harris, Dent, Smithies, Pauling et al) were doing what seemed to me more interesting things.

His elaboration of genetic susceptibility — the genetotrophic principle he called it — is very similar to Garrod's diathesis, but there's nothing in his book to suggest that he knew that Garrod was pushing the same line. He referred

to Garrod in two or three places, but only in reference to inborn errors. For example, there's no reference to "Inborn Factors in Disease." So he's quite independent of Garrod and must have experienced (or is still experiencing) the same frustrations. Or maybe more. At a time when these ideas are beginning to be taken seriously, he's not given much attention. But there's no doubt, he's a genuine pioneer.

Provine's book on S. Wright is a rich source of information on genes and enzymes and biochemical genetics.

Best regards,

Yours very truly,

Barton Childs, M.D.
Professor Emeritus

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enclosure